

CLAIMS

What is claimed is:

1. A plasma display panel comprising:

a front substrate;

sustain and scan electrodes formed in a striped pattern on a bottom of said front substrate;

a bus electrode formed on a bottom of each said sustain and scan electrodes;

a dielectric layer formed on a bottom of said front substrate to cover said sustain, scan, and bus electrodes;

a protective layer formed on a bottom of said dielectric layer;

a rear substrate disposed opposite said front substrate;

address electrodes formed on a top of said rear substrate to be orthogonal to said sustain electrodes;

partition walls formed on said address electrodes parallel to said address electrodes, adjacent pairs of said partition walls defining discharge spaces, and ones of said partition walls having different corresponding widths; and

red, green and blue phosphor layers deposited on corresponding insides of pairs of said partition walls.

2. The plasma display panel of claim 1, further comprising another dielectric layer to cover said address electrodes.

3. The plasma display panel of claim 2, wherein the width of each of said partition walls decreases from a periphery of said rear substrate toward a center of said rear substrate in proportion to a voltage drop experienced by said bus electrodes.

4. The plasma display panel of claim 2, wherein the discharge spaces gradually become narrower from a center of said rear substrate toward a periphery of said rear substrate corresponding to a change in the width of each of said partition walls.

5. A plasma display panel comprising:
a first substrate and a second substrate;
first electrodes disposed on said first substrate in a first direction;
a dielectric layer disposed on said first substrate to cover said first electrodes;
a protective layer formed on a bottom of said dielectric layer;
second electrodes disposed on said second substrate opposite said first electrodes in a second direction non-parallel with the first direction;
partition walls disposed between said second electrodes and said first electrodes, wherein said partition walls are disposed in the second direction and adjacent pairs of said partition walls define discharge spaces therebetween, ones of the discharge spaces having different areas; and
phosphor layers disposed in corresponding pairs of said partition walls.

6. The plasma display panel of claim 5, wherein:
said first electrodes further comprise corresponding bus electrodes, and

the areas of ones of the discharge spaces change in accordance with a voltage drop experienced by ones of the bus electrodes due to line resistance during operation of the plasma display panel.

7. The plasma display panel of claim 5, wherein the areas of ones of the discharge spaces change in accordance with a distance of the corresponding pairs of said partition walls from a center of said second substrate.

8. The plasma display panel of claim 7, wherein the areas of each of the discharge spaces decrease in accordance with the distance from the center.

9. The plasma display panel of claim 5, wherein:
said first electrodes further comprise corresponding bus electrodes, and
widths of ones of said partition walls change in accordance with a voltage drop experienced by ones of the bus electrodes due to line resistance during operation of the plasma display panel.

10. The plasma display panel of claim 5, wherein widths of ones of said partition walls change in accordance with a distance of said partition walls from a center of said second substrate.

11. The plasma display panel of claim 10, wherein the widths of each of said partition walls increase in accordance with the distance of said partition walls from the center of said second substrate.

12. The plasma display panel of claim 11,
further comprising another dielectric layer disposed on said second substrate to
cover the address electrodes, and
wherein said partition walls are disposed on said another dielectric layer, and
said second electrodes comprise address electrodes disposed between
corresponding adjacent pairs of said partition walls.

13. A plasma display panel comprising:
a first substrate and a second substrate;
first electrodes disposed on said first substrate in a first direction, said first electrodes
including corresponding bus electrodes;
a dielectric layer disposed on said first substrate to cover said first electrodes;
a protective layer formed on a bottom of said dielectric layer;
second electrodes disposed on said second substrate opposite said first electrodes
in a second direction non-parallel with the first direction;
partition walls disposed between said second electrodes and said first electrodes,
where said partition walls are disposed in the second direction and adjacent pairs of said
partition walls define discharge spaces therebetween; and
phosphor layers disposed in corresponding discharge spaces,
wherein a luminescence of the plasma display panel is maintained while increasing
an opening ratio of the discharge spaces as the discharge spaces approach a center of said
second substrate to account for a voltage drop in ones of the bus electrodes of said first
electrodes due to line resistance during operation of the plasma display panel.

14. The plasma display panel of claim 13, wherein an amount of phosphor in ones of said phosphor layers changes as a function of a proximity of said phosphor layer to the center of said second substrate.

15. The plasma display panel of claim 14, wherein the amount of the phosphor in each of said phosphor layers increases as the function of the proximity of said phosphor layer to the center of said second substrate.

16. A rear plate for use in a plasma display panel, comprising:
a substrate;
electrodes disposed on said substrate in a direction;
partition walls disposed on said substrate in the direction to define discharge spaces therebetween; and
phosphor layers disposed in corresponding discharge spaces,
wherein widths of ones of said partition walls change as a function of location on said substrate.

17. The rear plate of claim 16, wherein the widths of ones of said partition walls change to increase areas of corresponding discharge spaces as a function of a proximity of the discharge space to a center of said substrate.

18. The rear plate of claim 17, wherein the widths of each said partition walls decrease the closed said partition walls are to the center.